

Remarks

Claims 1-16 remain in the application.

Priority

The latest office action asserts that claims 1-16 are not supported by the prior-filed application no. 60/418,896, filed October 15, 2002. Applicants respectfully traverse this assertion with respect to each of claims 1-4, 7, and 10-16.

The following table shows in detail that support for each of claims 1-4, 7, and 10-16 is clearly found in the prior-filed application no. 60/418,896.

CLAIM	SUPPORT IN PRIORITY APPLICATION (APPLICATION NO. 60/418,896)
<p>1. A method of fault recovery by a switch in a local area network, the method comprising:</p> <ul style="list-style-type: none"> detecting a link failure at a port of the switch; and clearing all medium access control (MAC) address entries from a MAC address table of the switch in response to the link failure detection and without receiving from outside the switch any signal that signifies that the MAC address table of the switch is to be cleared. 	<p>This method of fault recovery is supported, for example, by the description starting at "Introducing ... the Link-Loss Learn feature on Magnum mP62 Ethernet Switches" on page 5.</p> <p>Detecting a link failure at a port in a switch and consequently clearing all MAC address entries is supported, for example, by the following. "When a LAN is functioning normally, the LINK indicator is present for each port in use. ... Importantly, the loss of LINK during normal operation usually means something has gone wrong" (Page 5, 4th paragraph.) "The Link-Loss-Learn feature improves the recovery time by forcing the mP62 Switch's address table to be flushed when LINK is lost on any designated port. The effect on the operation of the Switch is the same as upon power up." (Page 5, 7th paragraph.)</p>
<p>2. The method of claim 1, wherein clearing all MAC address entries from the</p>	<p>"The effect on the operation of the Switch is the same as upon power up. The first</p>

<p>MAC address table causes a discovery process to fill the table to begin immediately.</p>	<p>packet is broadcast and its address is learned. This continues rapidly until all addresses are learned and operation is normal.” (Page 5, 7th paragraph.)</p>
<p>3. The method of claim 1, further comprising: momentarily dropping a link on another port of the switch, wherein momentarily dropping a link comprises stopping transmission of a link signal for a period of time.</p>	<p>“But, what about the other mP62 units in the string or ring ... how will they know to do the same thing? For this reason, the Link-Loss-Learn feature in mP62s includes a ‘propagation’ function that, upon Link loss on one enabled port, temporarily drops Link on any other Link-Loss-Learn enabled ports to propagate the action in the units in the string or ring.” (Page 6, 4th paragraph.)</p>
<p>4. The method of claim 3, wherein momentarily dropping the link on the other port causes propagation of the link failure to a next switch.</p>	<p>“But, what about the other mP62 units in the string or ring ... how will they know to do the same thing? For this reason, the Link-Loss-Learn feature in mP62s includes a ‘propagation’ function that, upon Link loss on one enabled port, temporarily drops Link on any other Link-Loss-Learn enabled ports to propagate the action in the units in the string or ring.” (Page 6, 4th paragraph.)</p>
<p>7. The method of claim 3, wherein the link is momentarily dropped for a length of time sufficient for a next switch to detect the link drop.</p>	<p>“But, what about the other mP62 units in the string or ring ... how will they know to do the same thing? For this reason, the Link-Loss-Learn feature in mP62s includes a ‘propagation’ function that, upon Link loss on one enabled port, temporarily drops Link on any other Link-Loss-Learn enabled ports to propagate the action in the units in the string or ring.” (Page 6, 4th paragraph.)</p>
<p>10. A network apparatus comprising: a medium access control (MAC) address table; and a plurality of ports wherein at least one port implements a link-loss-learn protocol wherein upon detecting a link failure at the port, the MAC address table is cleared of all MAC address entries therein without receiving from outside the apparatus any signal that signifies that the MAC address table of the apparatus is to be cleared.</p>	<p>This network apparatus is supported, for example, by the description starting at “Introducing ... the Link-Loss Learn feature on Magnum mP62 Ethernet Switches” on page 5.</p> <p>Detecting a link failure at a port in a switch and consequently clearing all MAC address entries is supported, for example, by the following. “When a LAN is functioning normally, the LINK indicator is present for each port in use. ... Importantly, the loss of LINK during normal operation usually means something has gone wrong” (Page 5, 4th</p>

	paragraph.) “The Link-Loss-Learn feature improves the recovery time by forcing the mP62 Switch’s address table to be flushed when LINK is lost on any designated port. The effect on the operation of the Switch is the same as upon power up.” (Page 5, 7 th paragraph.)
11. The apparatus of claim 10, wherein upon clearing all MAC address entries from the MAC address table, a discovery process is begun by the apparatus.	“The effect on the operation of the Switch is the same as upon power up. The first packet is broadcast and its address is learned. This continues rapidly until all addresses are learned and operation is normal.” (Page 5, 7 th paragraph.)
12. The apparatus of claim 11, wherein the link-loss-learn protocol in which the MAC address table is cleared upon link failure detection without receiving from outside the switch any signal that signifies that the MAC address table of the switch is to be cleared further comprises, upon detecting the link failure at the port, momentarily dropping links on other ports of the apparatus which implement the link-loss-learn protocol so as to propagate the link failure, wherein momentarily dropping a link comprises stopping transmission of a link signal for a period of time.	“... an mP62 with the Link-Loss-Learn feature enabled would immediately dump its address table and be ready to relearn addresses and operate in a changed network configuration. But, what about the other mP62 units in the string or ring ... how will they know to do the same thing? For this reason, the Link-Loss-Learn feature in mP62s includes a ‘propagation’ function that, upon Link loss on one enabled port, temporarily drops Link on any other Link-Loss-Learn enabled ports to propagate the action in the units in the string or ring.” (Page 6, 4 th paragraph.)
13. The apparatus of claim 12, wherein the apparatus comprises a multi-port Ethernet switch.	“The Link-Loss-Learn feature of the Magnum mP62 Ethernet Switch addresses issues that can occur when mP62’s are used in redundant network configurations” (Page 5, 1 st paragraph.)
14. A network comprising: a plurality of Ethernet switches in a redundant topology, wherein at least one switch implements a link-loss-learn protocol for rapid fault recovery, wherein the link-loss-learn protocol comprises, upon detecting a link failure at a port of the switch, clearing a medium access control (MAC) address table of all MAC address entries therein, without receiving from outside the switch any signal that signifies that the MAC address	<p>“The Link-Loss-Learn feature of the Magnum mP62 Ethernet Switch addresses issues that can occur when mP62’s are used in redundant network configurations” (Page 5, 1st paragraph.)</p> <p>Detecting a link failure at a port in a switch and consequently clearing all MAC address entries is supported, for example, by the following. “When a LAN is functioning normally, the LINK indicator is present for each port in use. ... Importantly, the loss of LINK during normal operation usually means something</p>

table of the switch is to be cleared.	has gone wrong” (Page 5, 4 th paragraph.) “The Link-Loss-Learn feature improves the recovery time by forcing the mP62 Switch’s address table to be flushed when LINK is lost on any designated port. The effect on the operation of the Switch is the same as upon power up.” (Page 5, 7 th paragraph.)
15. The network of claim 14, wherein upon clearing all MAC address entries from the MAC address table, a discovery process is begun by the switch.	“The effect on the operation of the Switch is the same as upon power up. The first packet is broadcast and its address is learned. This continues rapidly until all addresses are learned and operation is normal.” (Page 5, 7 th paragraph.)
16. The network of claim 15, wherein the link-loss-learn protocol further comprises, upon detecting the link failure at the port, momentarily dropping links on other ports of the switch that implements the link-loss-learn protocol in which the MAC address table is cleared upon link failure detection without receiving from outside the switch any signal that signifies that the MAC address table of the switch is to be cleared, and wherein momentarily dropping a link comprises stopping transmission of a link signal for a period of time.	“But, what about the other mP62 units in the string or ring ... how will they know to do the same thing? For this reason, the Link-Loss-Learn feature in mP62s includes a ‘propagation’ function that, upon Link loss on one enabled port, temporarily drops Link on any other Link-Loss-Learn enabled ports to propagate the action in the units in the string or ring.” (Page 6, 4 th paragraph.)

The above table shows in detail that support for each of claims 1-4, 7, and 10-16 is clearly found in the prior-filed application no. 60/418,896. **Therefore, applicants respectfully submit that priority to the prior-filed application no. 60/418,896 is properly claimed for at least claims 1-4, 7, and 10-16.**

Claim Rejections -- 35 USC 102

Claims 1 and 10 stand rejected under 35 USC 102(e) as being anticipated by Malhotra et al (US 2003/0161275). Applicants respectfully traverse this rejection.

As discussed above, support for claims 1-4, 7, and 10-16 is clearly found in the prior-filed application no. 60/418,896. Therefore, the present application

has an effective filing date of October 15, 2002, at least with respect to claims 1-4, 7, and 10-16.

Malhotra et al was first filed in the United States on January 16, 2003. Hence, **the US filing date of Malhotra et al is after the effective US filing date of the present application**, at least with respect to claims 1-4, 7, and 10-16.

The above facts clearly show that, at least in relation to claims 1 and 10, Malhotra et al was not "filed in the United States before the invention by the applicant" as required by 35 USC 102(e). Therefore, applicants respectfully submit that **Malhotra et al does not qualify as prior art to this application under 35 USC 102(e) and so this rejection of claims 1 and 10 is overcome.**

Claim Rejections -- 35 USC 103

Claims 2-4, 7, 11-13, 15 and 16 stand rejected under 35 USC 103 as being unpatentable over Bare (US 2003/0016624) in view of Malhotra et al (US 2003/0161275). Claims 8--9 stand rejected under 35 USC 103 as being unpatentable over Bare (US 2003/0016624) in view of Malhotra et al (US 2003/0161275). Claim 5 stands rejected under 35 USC 103 as being unpatentable over Bare (US 2003/0016624) in view of Malhotra et al (US 2003/0161275) and further in view of Eisen et al. Claim 6 stands rejected under 35 USC 103 as being unpatentable over Bare (US 2003/0016624) in view of Malhotra et al (US 2003/0161275) and further in view of Tanoue. Each of these rejections depend upon Malhotra et al.

Applicants respectfully traverse each of these rejections.

As discussed above, support for claims 1-4, 7, and 10-16 is clearly found in the prior-filed application no. 60/418,896. Therefore, the present application has an effective filing date of October 15, 2002, at least with respect to claims 1-4, 7, and 10-16.

Malhotra et al was first filed in the United States on January 16, 2003. Hence, **the US filing date of Malhotra et al is after the effective US filing date of the present application**, at least with respect to claims 1-4, 7, and 10-16.

Hence, applicants respectfully submit that **Malhotra et al does not qualify as prior art to this application under 35 USC 102(e) with respect to each of independent claims 1, 10, and 14, and so each of these independent claims now overcome its rejection.**

Dependent claims 2-9 depend from claim 1. Therefore, applicants respectfully submit that claims 2-9 also overcome their rejection.

Dependent claims 11-13 depend from claim 10. Therefore, applicants respectfully submit that claims 11-13 also overcome their rejection.

Dependent claims 15-16 depend from claim 14. Therefore, applicants respectfully submit that claims 15-16 also overcome their rejection.

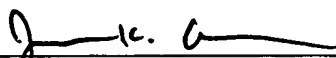
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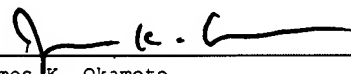
For the above-discussed reasons, applicants respectfully submit that the application, as hereby amended, now overcomes all the objections and rejections from the office action. Favorable action is respectfully solicited.

If for any reason an insufficient fee has been paid, the Commissioner is hereby authorized to charge the insufficiency to Deposit Account No. 50-2427 of Okamoto & Benedicto LLP.

Respectfully Submitted,

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